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ANNUAL FOREST INSECT REPORT, NARRATIVE PORTION,
LASSEN VOLCANIC NATIONAL PARK, 1938

Eugene J. Barton,
Mineral, California,
November, 1938

ANNUAL FOREST INSECT REPORT

NARRATIVE PORTION

LASSEN VOLCANIC NATIONAL PARK 1938

Manzanita Lake
Nov. 1938

I. Unit surveyed

A. Park as a unit.

II. Date of field survey

General observations were made throughout the summer. A specific survey of most of the park was made September 21 and 22 by Dr. K. A. Salman of the Bureau of Entomology, Berkeley Office.

III. Method

A. General observation

B. Detailed examination of infested areas.

IV. General situation

No alarming conditions were noted. Infestation in the lodgepole pine is less than for several years past. Losses among the ponderosa pine and the firs were less than have been noted during any of the previous several years.

The following is quoted from Dr. K. A. Salman's report covering the survey made in September 1938:

"In general, infestations remain at a fairly low level. Losses in ponderosa pine are low though the infestation potential is increasing. 1937 losses in Jeffrey pine were noticeable. Increases seem to be in order for 1938 and the infestation is active. Jeffrey pine trees were being attacked at the time the examination was made. Detection of infested trees by pitch tubes and bleeding instead of by the use of foliage characteristics was necessary.

"The expected increase in activity by the mountain pine beetle in lodgepole pine did not materialize during the season. It is believed that the large amount of windthrown and snow broken material which has absorbed a considerable portion of the attacking population may be partly responsible for the relatively light infestation in standing trees. Engraver beetle infestations in white and red firs continue fairly strong. They are causing top killing as well as the extension of progressive infestations."

V. Special situations

As there are no areas of new infestation nor areas where losses are particularly serious or threaten to become so, it is not felt necessary to go through the full outline under this heading for any areas in the park. Rather, a brief discussion of areas of intensive use is given.

The following from Dr. Salman's report describes conditions in the Manzanita and Summit Lake areas and along a portion of the Lassen Peak Highway, which are the only areas recommended for any control work at this time.

"Maintenance control should be continued at Manzanita Lake where

several trees were found to be infested by the Jeffrey pine beetle. In addition, a few other weakened trees showed an excessive bleeding indicating abnormal conditions. Trees in the parking area near the Museum are being badly damaged by traffic. If they are to remain in that area, they should be protected.

"Along the Lassen Peak Highway from Chaos Jumbles to the Devastated Area, 1937 Jeffrey pine losses were showing up on southern exposures. It is expected that the 1938 losses will continue relatively heavy on these areas. Under present conditions it seems desirable to extend maintenance control to cover a wider road strip along the road and to treat more of the infestation on this area.

"In Summit Lake campground no infested lodgepoles were seen. However, several red fir succumbed during the season to progressive infestations. They still carry broods of the fir engraver beetle. Several other firs are near death although they have not yet become completely infested. The rapid rate of loss of shade in this area is an important factor affecting continued use of this campground. It seems desirable to treat the infested fir this season in an effort to slow down the loss. However, more effective treatments along several lines should be evolved if this campground is to remain satisfactory for intensive use."

Due to the extremely short season in 1938 and the fact that available CCC forces were concentrated on blister rust control work, no insect control has been done this year.

Regarding the situation at Summit Lake Campground, a large percentage of the trees are mature red fir. Throughout the red fir stands covering a large part of the park there is bark beetle infestation which takes a considerable toll, branches and tops dying and scattered trees being killed each year. The losses have undoubtedly been accelerated at Summit Lake by campground use. The red fir infestation seems almost to defy any known control methods. Previous control work in the Summit Lake Campground by removal and burning of dead and dying trees seems to have had no effect in lessening the infestation.

In the opinion of the writer loss of the large mature red fir in the Summit Lake campground is inevitable. The loss might be slowed down by removal of infested trees and reconstruction of the campground by the Meinecke plan to avoid damage by soil packing, etc. However, due to the coolness of the climate at Summit Lake abundant shade is not quite so necessary as in some climates. Reproduction is coming in to replace the old trees to some extent.

Control work during the spring of 1939 with CCC forces is planned for the areas discussed above.

Eugene J. Barton
Chief Ranger

UNITED STATES
DEPARTMENT OF THE INTERIOR
National Park Service
Washington

1938 Annual Forest Insect Report
Lassen Volcanic National Park
(Name of national park or monument)

Name of plant species attacked	Name of attacking insect	Infestation				Opening and closing dates for control	Control			Estimated total cost next year
		Location	Extent	Damage	Status		Treatment	Last year	This year	
1	2	3	4	5	6	7	8	9	10	11
Jeffrey Pine	Jeffrey Pine Beetle	Manzanita Lake Area	6 trees	Weakened	Old, Remains about the same	May 11 to June 15 and Oct. 1 to Nov. 15	None	None	Removal and burning bark of badly infested trees	\$100
Jeffrey Pine	Same	Along Hwy. Chaos Jumbles to Dev. Area, 6 mi.	About 12 trees	Killed and dying	Old, Remains about the same.	same	None	None	Same as above for dying and badly infested.	\$200
Red Fir (Abies Magnifica)	Fir Engraver Beetle Mainly	Summit Lake Campground	10 trees	Killed and dying	Old, remains about the same,	May 15 to June 30 and Oct. 1 to Nov. 15	None since 1936	None	Same as above	\$200

Date or period of survey: September 21 and 22, 1938

Submitted by: Eugene J. Barton

Unit of survey: Park at large, and developed and special areas

Title: Chief Ranger

(Park at large, ranger district, biological control unit)

Date, November 7, 1938

Method of survey: General observation, examination of campgrounds.

(General observations, systematic examination by campgrounds, strips, plots, watersheds, tree census, or otherwise)

Note: Above recommendations based mainly on survey Bureau of Entomology representative.

Instructions for preparing report

The report is due not later than November 1 of each year for the preceding 12-month period. If surveys in different control units or ranger districts within a park or monument are made by different individuals, each individual shall make out one of these forms together with an accompanying narrative report.

Distribution of copies:

- Original: Regional Director, Attention Regional Forester.
- One copy: Director, Attention Chief Forester.
- One copy: Entomological field representative, Bureau of Entomology and Plant Quarantine.
- One copy: Park or monument files.

This report is to be supplemented with a detailed narrative report in accordance with the attached outline and also with a map showing the location of any new infestation or infestations of epidemic proportions.

All infestations within a park are to be reported on one sheet unless additional space is needed except the following:

1. Infestations of epidemic proportions which should be reported on separate sheets.
2. Surveys made by different individuals which should be reported by each individual on separate sheets.
3. Surveys made by ranger districts or biological control units which should be reported on separate sheets for each ranger district or biological control unit concerned.

Explanation of column headings

1 State scientific and/or common name or names of tree, shrub, or other plant species attacked by the insect.

2 State scientific and/or common name of the insect if known. If unknown, so state, and indicate its general type, whether bark beetle, borer, defoliator, leaf miner, gall aphis, budworm, twig pruner, etc.

3 Indicate whether infestation is general throughout the park or restricted to certain stated areas. Reference the site of the infestation to geographical or cultural features that are commonly known and named on the official map of the park. Examples are: Summit of Beech Knob; Battery 5; Tuolumne Meadows; Shirttail Canyon; Whitman Creek; Campground No. 12; etc.

4 If infestation is limited or confined to a few scattered trees state number of trees attacked. If restricted to roadsides state miles of same affected. If widespread state acreage and average number of trees per acre attacked.

5 Indicate severity of damage caused by the infestation. State whether trees are killed, dying, weakened, defoliated, or otherwise injured by the insect as a primary cause.

6 State whether infestation is a new or old one. If old indicate whether it has increased, decreased, or remained the same since last year.

7 State approximate opening and closing dates of applied control.

8 State what treatment was applied last year, if any, and to what extent it was responsible for any change indicated in column 9.*

9 State what treatment was applied this year, if any, and to what extent it appears to have been effective.*

10 State what treatment is recommended for next year, if any.*

11 Indicate approximate cost in man-days and materials separately of treatment recommended under 10.

* Give exact formula of any sprays or chemicals used or recommended, or indicate S. F. No. as listed in Tree Preservation Bulletin No. 6. State also date or dates of application.